

**Food and Drug Administration, HHS**

**§ 172.615**

(b) It is used in the following foods in the minimum quantity required to produce its intended effect as an emulsifier, stabilizer, binder, or bodying agent: Essential oils, nonnutritive sweeteners, flavor bases, nonstandardized dressings, and pudding mixes.

**§ 172.615 Chewing gum base.**

The food additive chewing gum base may be safely used in the manufacture

of chewing gum in accordance with the following prescribed conditions:

(a) The food additive consists of one or more of the following substances that meet the specifications and limitations prescribed in this paragraph, used in amounts not to exceed those required to produce the intended physical or other technical effect.

**MASTICATORY SUBSTANCES**

NATURAL (COAGULATED OR CONCENTRATED LATICES) OF VEGETABLE ORIGIN

Family	Genus and species
<b>Sapotaceae:</b>	
Chicle .....	Manilkara zapotilla Gilly and Manilkara chicle Gilly.
Chiquibul .....	Manilkara zapotilla Gilly.
Crown gum .....	Manilkara zapotilla Gilly and Manilkara chicle Gilly.
Gutta hang kang .....	Palaquium leiocarpum Boerl. and Palaquium oblongifolium Burck.
Massaranduba balata (and the solvent-free resin extract of Massaranduba balata).	Manilkara huberi (Ducke) Chevalier.
Massaranduba chocolate .....	Manilkara solimoesensis Gilly.
Nispero .....	Manilkara zapotilla Gilly and Manilkara chicle Gilly.
Rosidinha (rosadinha) .....	Micropholis (also known as Sideroxylon) spp.
Venezuelan chicle .....	Manilkara williamsii Standley and related spp.
<b>Apocynaceae:</b>	
Jelutong .....	Dyera costulata Hook, F. and Dyera lowii Hook, F.
Leche caspi (sorva) .....	Couma macrocarpa Barb. Rodr.
Pendare .....	Couma macrocarpa Barb. Rodr. and Couma utilis (Mart.) Muell. Arg.
Perillo .....	Couma macrocarpa Barb. Rodr. and Couma utilis (Mart.) Muell. Arg.
<b>Moraceae:</b>	
Leche de vaca .....	Brosimum utile (H.B.K.) Pittier and Poulsenia spp.; also Lacmellea standleyi (Woodson), Monachino (Apocynaceae).
Niger gutta .....	Ficus platyphylla Del.
Tunu (tuno) .....	Castilla fallax Cook.
<b>Euphorbiaceae:</b>	
Chilte .....	Cnidioscolus (also known as Jatropha) elasticus Lundell and Cnidioscolus tepiquensis (Cost. and Gall.) McVaugh.
Natural rubber (smoked sheet and latex solids).	Hevea brasiliensis.
Synthetic	Specifications
Butadiene-styrene rubber .....	Basic polymer.
Isobutylene-isoprene copolymer (butyl rubber).	Do.
Paraffin .....	Synthesized by Fischer-Tropsch process from carbon monoxide and hydrogen which are catalytically converted to a mixture of paraffin hydrocarbon. Lower molecular weight fractions are removed by distillation. The residue is hydrogenated and further treated by percolation through activated charcoal. The product has a congealing point of 93°–99 °C as determined by ASTM method D938–71 (Reapproved 1981), "Standard Test Method for Congealing Point of Petroleum Waxes, Including Petrolatum," a maximum oil content of 0.5 percent as determined by ASTM method D721–56T, "Tentative Method of Test for Oil Content of Petroleum Waxes," and an absorptivity of less than 0.01 at 290 millimicrons in decahydronaphthalene at 88 °C as determined by ASTM method D2008–80, "Standard Test Method for Ultraviolet Absorbance and Absorptivity of Petroleum Products," which are incorporated by reference. Copies may be obtained from the American Society for Testing Materials, 1916 Race St., Philadelphia, PA 19103, or may be examined at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: <a href="http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html">http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html</a> .
Petroleum wax .....	Complying with § 172.886.
Petroleum wax synthetic .....	Complying with § 172.888.
Polyethylene .....	Molecular weight 2,000–21,000.
Polyisobutylene .....	Minimum molecular weight 37,000 (Flory).
Polyvinyl acetate .....	Molecular weight, minimum 2,000.

## MASTICATORY SUBSTANCES—Continued

NATURAL (COAGULATED OR CONCENTRATED LATICES) OF VEGETABLE ORIGIN

Family	Genus and species
PLASTICIZING MATERIALS (SOFTENERS)	
Glycerol ester of partially dimerized rosin .....	Having an acid number of 3–8, a minimum drop-softening point of 109 °C, and a color of M or paler.
Glycerol ester of partially hydrogenated gum or wood rosin .....	Having an acid number of 3–10, a minimum drop-softening point of 79 °C, and a color of N or paler.
Glycerol ester of polymerized rosin .....	Having an acid number of 3–12, a minimum melting-point of 80 °C, and a color of M or paler.
Glycerol ester of gum rosin .....	Having an acid number of 5–9, a minimum drop-softening point of 88 °C, and a color of N or paler. The ester is purified by steam stripping.
Glycerol ester of tall oil rosin .....	Having an acid number of 2–12, a softening point (ring and ball) of 80°–88 °C, and a color of N or paler. The ester is purified by steam stripping.
Glycerol ester of wood rosin .....	Having an acid number of 3–9, a drop-softening point of 88 °C–96 °C, and a color of N or paler. The ester is purified by steam stripping.
Lanolin .....	
Methyl ester of rosin, partially hydrogenated .....	Having an acid number of 4–8, a refractive index of 1.5170–1.5205 at 20 °C, and a viscosity of 23–66 poises at 25 °C. The ester is purified by steam stripping.
Pentaerythritol ester of partially hydrogenated gum or wood rosin .....	Having an acid number of 7–18, a minimum drop-softening point of 102 °C, and a color of K or paler.
Pentaerythritol ester of gum or wood rosin .....	Having an acid number of 6–16, a minimum drop-softening point of 109 °C, and a color of M or paler.
Rice bran wax .....	Complying with § 172.890.
Stearic acid .....	Complying with § 172.860.
Sodium and potassium stearates .....	Complying with § 172.863.
TERPENE RESINS	
Synthetic resin .....	Consisting of polymers of $\alpha$ pinene, $\beta$ pinene, and/or dipentene; acid value less than 5, saponification number less than 5, and color less than 4 on the Gardner scale as measured in 50 percent mineral spirit solution.
Natural resin .....	Consisting of polymers of $\alpha$ -pinene; softening point minimum 155 °C, determined by U.S.P. closed-capillary method, United States Pharmacopeia XX (1980) (page 961).
ANTIOXIDANTS	
Butylated hydroxyanisole .....	Not to exceed antioxidant content of 0.1% when used alone or in any combination.
Butylated hydroxytoluene .....	Do.
Propyl gallate .....	Do.
MISCELLANEOUS	
Sodium sulfate .....	
Sodium sulfide .....	Reaction-control agent in synthetic polymer production.

(b) In addition to the substances listed in paragraph (a) of this section, chewing gum base may also include substances generally recognized as safe in food.

(c) To assure safe use of the additive, in addition to the other information required by the act, the label and labeling of the food additive shall bear the name of the additive, “chewing gum base.” As used in this paragraph, the term “chewing gum base” means the manufactured or partially manufactured nonnutritive masticatory substance comprised of one or more of the

ingredients named and so defined in paragraph (a) of this section.

[42 FR 14491, Mar. 15, 1977, as amended at 45 FR 56051, Aug. 22, 1980; 49 FR 5747, Feb. 15, 1984; 49 FR 10105, Mar. 19, 1984; 66 FR 38153, July 23, 2001; 66 FR 53711, Oct. 24, 2001]

**§ 172.620 Carrageenan.**

The food additive carrageenan may be safely used in food in accordance with the following prescribed conditions:

(a) The food additive is the refined hydrocolloid prepared by aqueous extraction from the following members of